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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/069,642 | 02/28/2002 | Katsuhiko Hiramatsu | L9289.02131 | 3592 |

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| EXAMINER | |
|---|---|
| AGHDAM, FRESHTEH N | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2631 | |

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/069,642 | HIRAMATSU ET AL. | |
| | Examiner | Art Unit | |
| | Freshteh N. Aghdam | 2631 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the expression "Prior Art" as described in the specification at page 9, on line 20 under the Brief Description of Drawings. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

Claims 12, 13, and 14 are objected to because of the following informalities:

As to claim 12, the word "comprising" after the expression "claim 6" should be removed. Furthermore, the recited claim is the same as claim 7 and is not further limiting.

As to claims 13 and 14, the recited claims are missing from the disclosure of the invention.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 3, 11, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkvall et al (US 6,542,736), and further in view of Lee et al (US 6,690,944).

As to claims 1, 3, 15, and 16, Parkvall et al teach a base station method and apparatus wherein the base station receives the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); transmitting means for transmitting the data channel signal according to a modulation system and coding system decided

using the reception quality of the control channel signal (Fig. 4; Col. 7, Lines 44-47). Parkvall et al is silent about estimating means for estimating the reception quality of a data channel signal based on the reception quality of the control channel signal and transmit values of the control channel signal and the data channel signal. Lee et al, in the same field of endeavor, teach estimating means for estimating the reception quality of data channel signal based on the reception quality of the control channel signal and transmit power values of the control channel signal (i.e. pilot channel signal) and the data channel signal (Fig. 5; Col. 2, Lines 56-67; Col. 10, Lines 63-67; Col. 11, Lines 1-2 and 15-20). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Lee et al with Parkvall et al in order to reduce the transmit power from the mobile stations to achieve the same quality of service (QoS) see (Col.2, Lines 30 and 31).

As to claim 2, Parkvall et al teach a mobile station method and apparatus wherein the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); transmitting means for transmitting the reception quality of the control channel signal to the base station apparatus wherein the base station apparatus transmits the data channel signal according to the modulation and coding system decided using the reception quality of the control channel signal (Fig. 4; Col. 7, Lines 44-47). Parkvall et al is silent about estimating means for estimating the reception quality of a data channel signal based on the reception quality of the control channel signal and transmit values of the control channel signal and the data channel signal at

the base station. Lee et al, in the same field of endeavor, teach estimating means for estimating the reception quality of data channel signal based on the reception quality of the control channel signal and transmit power values of the control channel signal (i.e. pilot channel signal) and the data channel signal (Fig. 5; Col. 2, Lines 56-67; Col. 10, Lines 63-67; Col. 11, Lines 1-2 and 15-20). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Lee et al with Parkvall et al in order to reduce the transmit power from the mobile stations to achieve the same quality of service (QoS) see (Col.2, Lines 30 and 31).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 4-7, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Parkvall et al.

As to claims 4 and 5, Parkvall et al teach a mobile station method and apparatus wherein the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); estimating means for estimating the reception quality of the data channel

signal based on the reception quality of the control channel signal and transmit power values of the control channel signal and the data channel signal sent from the base station apparatus (Fig. 11; Col. 3, Lines 1-5); transmitting means for transmitting the reception quality of the estimated data channel signal to the base station wherein the base station apparatus transmits the data channel signal according to the modulation system and coding system decided using the reception quality of the data channel signal (Fig. 4; Col. 7, Lines 44-47).

As to claims 6, 7, 11, and 12, Parkvall et al teach a mobile station method and apparatus wherein the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); estimating means for estimating the reception quality of the data channel signal based on the reception quality of the control channel signal and transmit power values of the control channel signal and the data channel signal sent from the base station apparatus (Fig. 11; Col. 3, Lines 1-5); selecting means for selecting a target base station apparatus with the best estimated reception quality of the data channel signal from among all the base station apparatuses as the requested destination of the data channel signal (Col. 3, Lines 6-9); transmitting means for transmitting the reception quality of the estimated data channel signal to the target base station wherein the base station apparatus transmits the data channel signal according to the modulation system and coding system decided using the reception quality of the data channel signal (Fig. 4; Col. 7, Lines 44-47).

Claims 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Parkvall et al.

As to claim 8, Parkvall et al teach a base station method and apparatus wherein the base station receives the reception quality of a control channel signal at block 62 of figure 4 measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); estimating means (Fig. 4, Block 62) for estimating the reception quality of a data channel signal (i.e. Packet Data in Fig. 4) based on the reception quality of the control channel signal and transmit values of the control channel signal (pilot signal) and the data channel signal (Fig. 4, 7, and 11; Col. 3; Lines 1-5); transmitting means for transmitting the data channel signal according to a modulation system and coding system decided using the reception quality of the estimated data channel signal (Fig. 4; Col. 7, Lines 44-47).

As to claim 9, Parkvall et al teach a mobile station method and apparatus wherein the reception quality of a control channel signal (block 62 of figure 4) measured at a communication terminal apparatus (Col. 2, Lines 16-19; Col. 3, Lines 1-5; Col. 7, Lines 28-35); estimating means for estimating the reception quality of the data channel signal based on the reception quality of the control channel signal and transmit power values of the control channel signal and the data channel signal sent from the base station apparatus (Fig. 11; Col. 3, Lines 1-5); transmitting means for transmitting the modulation system and coding system used for the data channel signal decided using the reception quality of the estimated data channel signal to the base station apparatus (Fig. 4; Col.2, Lines 17-36; Col. 7, Lines 44-47).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ostman et al (US 6,728,228), Proctor, Jr. et al (US 6,563,809), Vancraeynest (US 6,859,444), Pecen et al (US 2002/0098860), Kamel et al (US 6,285,886), Sato (US 6,414,948), Saints (US 5,903,554), and Detlef et al 9US 6,243,568).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam

April 24, 2005

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